



Shallow Trench Isolation Process Flow

1. Pad Oxide
2. Nitride: Trench Etch Hard Mask and CMP Stop Layer
3. Island Mask
4. Trench Etch
5. Oxide Liner: Corner Rounding
6. Trench Fill
7. Densification (Can Be Skipped)

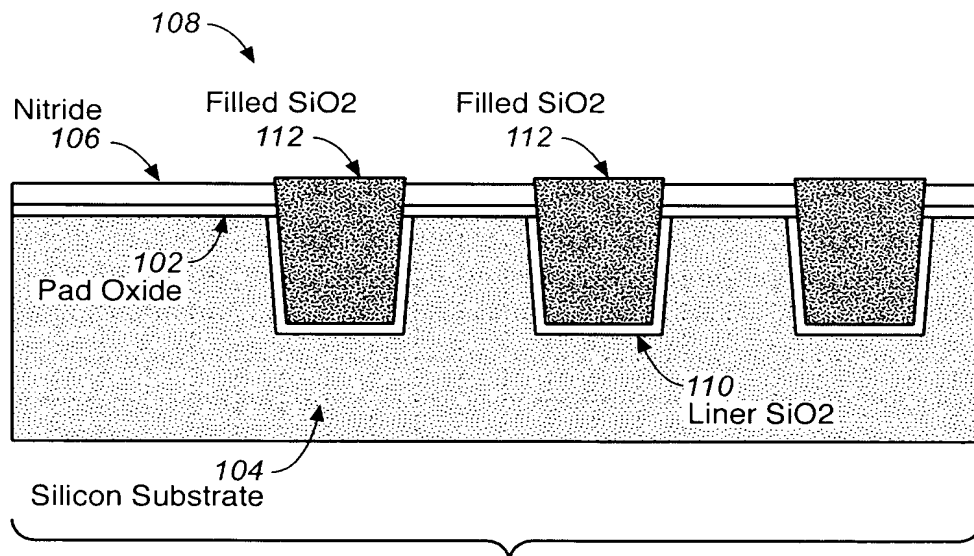
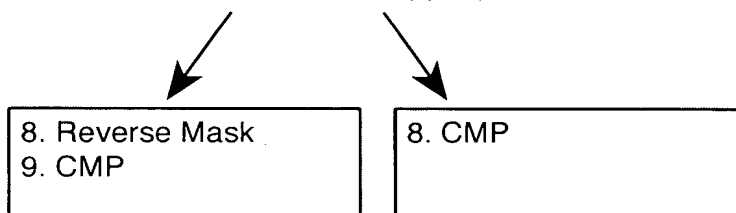


FIG._1
(PRIOR ART)



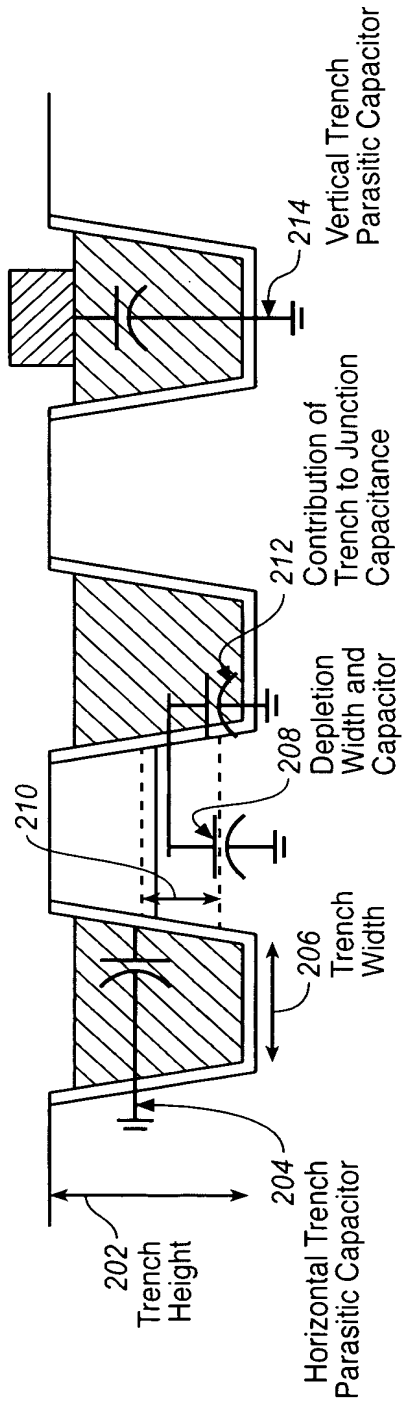


FIG. 2 (PRIOR ART)

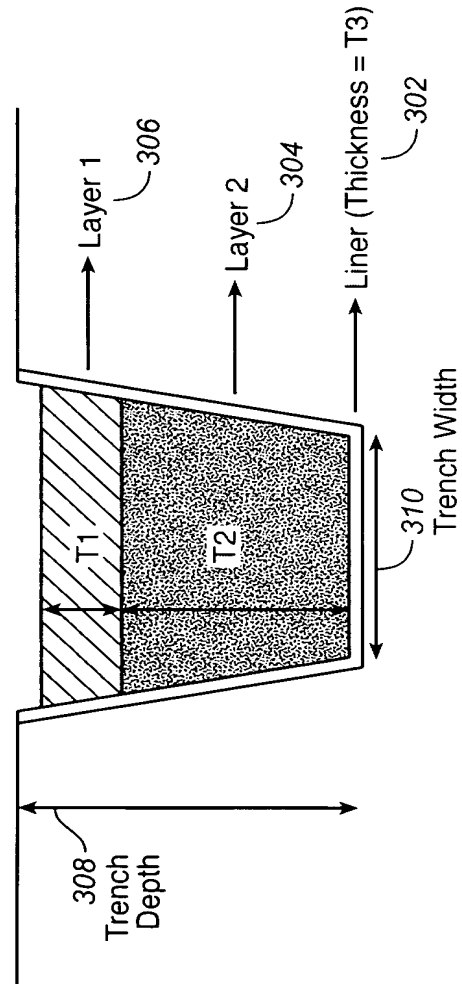


FIG. 3a

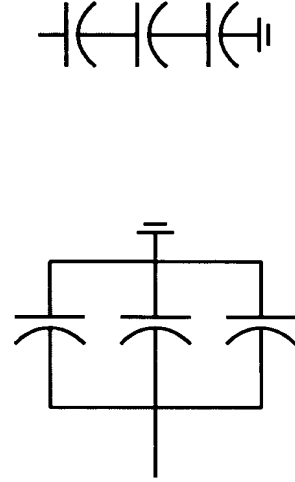
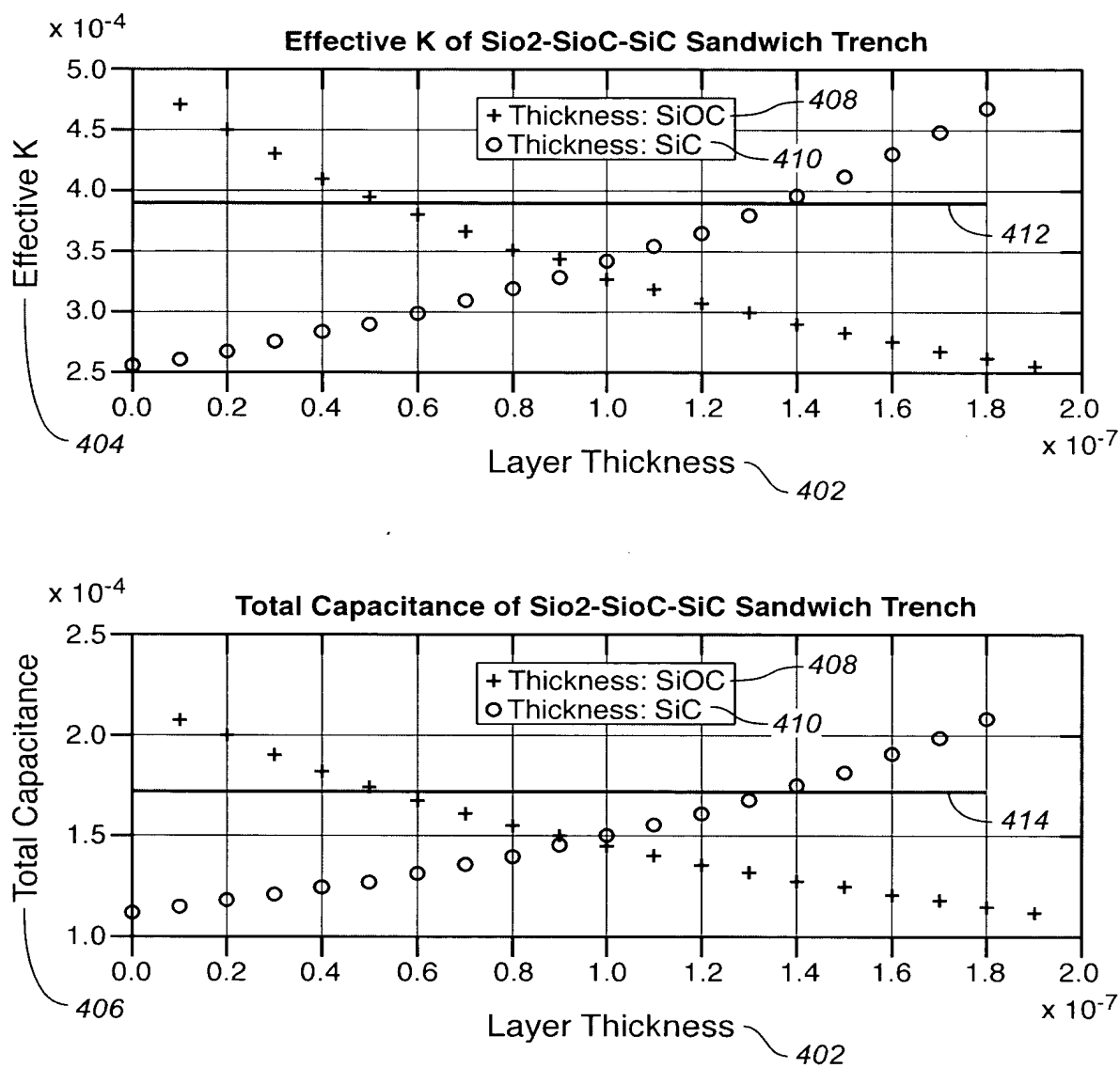
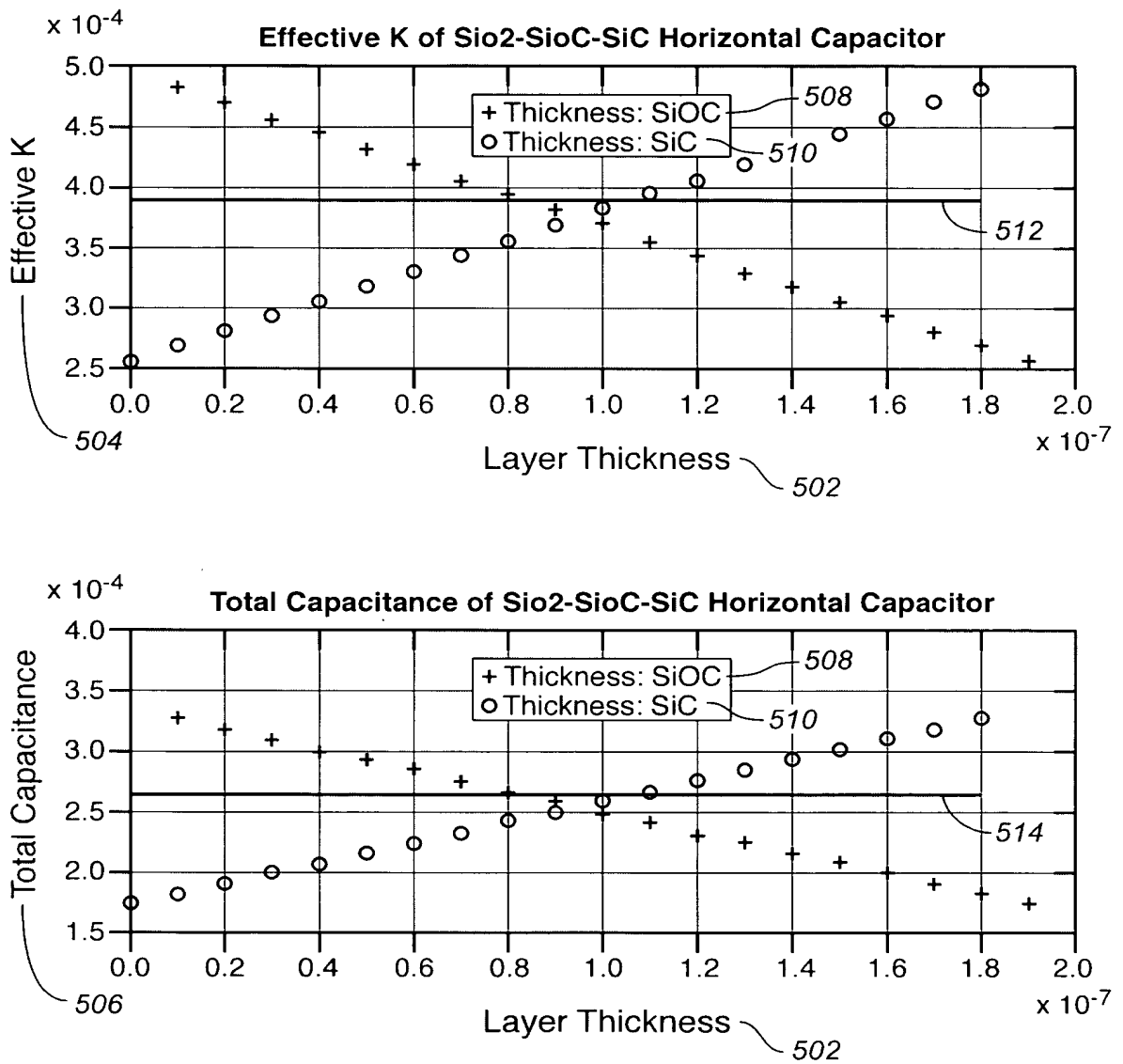


FIG. 3b

FIG. 3c

**FIG. 4**

**FIG._5**